

REMARKS

Claims 1-57 are pending in this application, of which claims 1, 10, 19, 28, 32, 33, 34, 43, 52, 46 and 57 have been amended.

Claim Rejection under 35 USC §103

Claims 1, 2, 10, 11, 19, 20, 28, 29, 32-35, 43, 44, 52, 53, 56 and 57 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (U.S. 6,122,713) in view of Muehsam (U.S. 6,608,400), and further in view of Sekiguchi (Publication No. US 2002/0156899).

The present invention is a gateway card (510) connected to a personal computer (520 an information processor) and that receives and transmits data between different networks (WAN 200 and LAN 400). Both the gateway card (510) and the personal computer (520) can access a common hard disk drive (hereinafter, "HDD") (540). The personal computer (520) (the information processor) has a normal power mode and a power saving mode. The normal power mode is when rated power is supplied to each section of the personal computer (520). The power saving mode is when a minimum necessary power, (that is lower than the rated power), is supplied to every section of the personal computer (520). A switching section (517) executes switching of the access to the HDD (540) between the personal computer (520) and the gateway card (510). When the personal computer (520) is in the normal power mode a main control section (515) outputs a switch control signal to the switching section (517) to switch the HDD (520) to the personal computer (520). When the personal computer (520) is in the power saving mode the main control section (515) outputs a

switch control signal to the switching section (517) to switch the HDD (520) to the gateway card (510).

Further, as indicated on page 11, lines 16-23 of the specification, the power saving mode is classified into a standby mode and a suspension mode. In the standby mode, a memory (524) in the personal computer (520) stores the work data and, therefore, it is necessary to keep supplying power to this memory (524) and the personal computer (520). On the other hand, in the suspension mode, the common HDD (540) stores the work data, and power supply to this common HDD (540) is set off. Thus, in the suspension mode there is no need to supply power to the personal computer (520).

In the present invention, power supply to the common HDD is not turned off. The common HDD is switched to the gateway card when the personal computer (PC) shifts to the power saving mode or when the PC is turned off, regardless of the standby mode or the suspension mode of the PC. When the PC is in operation, although the common HDD is disconnected from the gateway card, read/write of data can be performed via the network, which enables the gateway card to perform processing continuously and without interruption.

Huang et al. describes a system for controlling access to a dual port shared memory in a system having a host computer system and a communication device. The shared memory is accessible by both the host computer and the communication device. A board or local processor has is the high priority requester, while the host CPU or host computer is the low priority requester. If the high priority side (board) gains the semaphore first, then accesses by the

low priority side (host computer) are blocked until the write is finished. In the case of a host read/board write, if the low priority side gains the semaphore first, then the high priority side write can pre-empt the low priority side read.

Muehsam describes an interruption free power supply for a HDD which is shared by a number of computer systems. The voltage-monitoring switchover PCS (power check switch) monitors the voltages at input terminals. Several input terminals are connected to the PCS. The HDD is connected to an output terminal connected to the PCS. When the voltage at an input terminal fails, the switchover PCS automatically switches to an input terminal at which a voltage is adjacent. In this way, the shared system unit HDD is always supplied with voltage without a separate interruption-free power supply being required for this purpose.

Sekiguchi describes a home gateway device (102) connected to the Internet (114).

Independent claims 1, 10, 19, 28, 32, 33, 34, 43, 52, 56 and 57 have been amended to distinguish them over the prior art. Specifically, in the present invention, power supply to the common HDD is not turned off. The common HDD is switched to the gateway card when the personal computer (PC) shifts to the power saving mode or when the PC is turned off, regardless of the standby mode or the suspension mode of the PC. When the PC is in operation, although the common HDD is disconnected from the gateway card, read/write of data can be performed via the network, which enables the gateway card to perform processing continuously and without interruption. Therefore, withdrawal of the rejection of Claims 1, 2, 10, 11, 19, 20, 28, 29, 32-35, 43, 44, 52, 53, 56 and 57 under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (U.S.

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6,122,713) in view of Muehsam (U.S. 6,608,400), and further in view of Sekiguchi (Publication No. US 2002/0156899) is respectfully requested.

Conclusion

In view of the aforementioned amendments and accompanying remarks, claims 1-57, as amended, are believed to be patentable and in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosure: Petition for Extension of Time

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